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Appl. No. 09/995,415

Response to May 10, 2004 Office action

### **CLAIM AMENDMENTS**

Claims 1-91 were originally pending.

Please amend claims 2-6, 8-12, 14-15, 17, 20-22, 24-26, 28-32, 34-35, 37, 40-42, 44-46, 48-52, 54-55, 57, 60-62, 64-66, 68-72, 74-75, 77, and 80-82.

Kindly cancel claims 1, 7, 13, 23, 27, 33, 43, 47, 53, 63, 67, 73, and 83-91 without prejudice.

Accordingly, claims 2-6, 8-12, 14-22, 24-26, 28-32, 34-42, 44-46, 48-52, 54-62, 64-66, 68-72 and 74-82 remain pending.

The following listing of claims replaces all prior versions, and listings of claims in the application.

Appl. No. 09/995,415

Response to May 10, 2004 Office action

**Listing of Claims:**

1. (Canceled).
2. (Currently amended) A method as recited in claim 14 ~~1~~, wherein the inter-object relationships comprise a flat relationship, a hierarchical relationship, and multiple intersecting hierarchies of relationships.
3. (Currently amended) A method as recited in claim 14 ~~1~~, where the objects comprise enterprise resource planning (ERP) objects, directory based objects, or database objects.
4. (Currently amended) A method as recited in claim 14 ~~1~~, wherein generating the schema further comprises:
  - identifying a plurality of attributes of interest based on values of attributes of the objects;
  - identifying one or more dimensions of inter-object relationships within which objects that comprise at least a subset of the attributes of interest participate.
5. (Currently amended) A method as recited in claim 14 ~~1~~, wherein the schema is designed to provide access control to organizational resources.
6. (Currently amended) A method as recited in claim 14 ~~1~~, further comprising communicating the schema to a client, the schema identifying how the client can access objects in the data polyarchy.

Appl. No. 09/995,415

Response to May 10, 2004 Office action

7. (Canceled).

8. (Currently amended) A method as recited in claim 14 ~~7~~, wherein the transformed data expresses the inter-object relationships with respect to other objects in a same dimension or other objects in a different dimension, the same and/or the different dimension being indicated by the request.

9. (Currently amended) A method as recited in claim 14 ~~7~~, wherein the request comprises a limiting attribute to limit the transformed data by presenting the one or more objects only with respect to the limiting attribute.

10. (Currently amended) A method as recited in claim 14 ~~7~~, wherein the request queries for information corresponding to an object in the data polyarchy with respect to one or more particular dimensions.

11. (Currently amended) A method as recited in claim 14 ~~7~~, wherein the request further comprises a dimension indicator to specify one or more hierarchies within which the data is to be presented in the transformed data.

12. (Currently amended) A method as recited in claim 14 ~~7~~, wherein the request further comprises a distinguishing attribute, a classifying attribute, or a locating attribute.

13. (Canceled).

Appl. No. 09/995,415

Response to May 10, 2004 Office action

14. (Currently amended) ~~A~~ In a computer system, a method as recited in claim 13, comprising:

dynamically generating a schema to represent multiple hierarchies of inter-object relationships between a plurality of objects in a data polyarchy, the schema being generated based on values of attributes of the objects;

receiving a request based on the schema from a client, the request comprising a dimension information modifier to specify a particular direction and a particular depth to retrieve information from the data polyarchy, wherein the dimension information modifier is a siblings indication to retrieve all objects with a same parent as a current object in the data polyarchy; and

responsive to receiving the request:

accessing an object of the objects based on the request;

transforming the object into transformed data that expresses any inter-object relationship between the object and any other object of the objects based on the request; and

issuing the transformed data to the client.

15. (Currently amended) A method as recited in claim 14, wherein the request indicates that at least one subset of the objects comprise a similar attribute; and wherein accessing one or more objects further comprises:

retrieving the one or more objects in a manner that is independent of any hierarchical data relationship between the data objects in the at least one subset.

Appl. No. 09/995,415

Response to May 10, 2004 Office action

16. (Original) A method as recited in claim 15, wherein the similar attribute comprises a logical domain selected from a distinguishing domain, a locating domain or a classifying domain.

17. (Currently amended) A method as recited in claim 14 7, wherein the request corresponds to at least a first and second subset of the objects, the request comprising a logical modifier that specifies an operation, and wherein the method further comprises:

responsive to receiving the request, identifying at least a portion of the first and second subsets of directory objects in the polyarchical data set; and

wherein transforming the one or more objects further comprises performing the operation on the first and second subsets.

18. (Original) A method as recited in claim 17, wherein the logical modifier is a Boolean modifier.

19. (Original) A method as recited in claim 17, wherein the operation comprises any combination of filtering, union, intersection, join, and/or exclusion operations.

20. (Currently amended) A method as recited in claim 14 7, wherein accessing the object further comprises accessing the object in a manner that is independent of any inter-object relationship between the object and any other object of the objects in a manner that is independent of any definition of a hierarchy in the data polyarchy.

Appl. No. 09/995,415

Response to May 10, 2004 Office action

21. (Currently amended) A method as recited in claim 14\_7, wherein accessing the object further comprises querying the data polyarchy for the object.

22. (Currently amended) A method as recited in claim 14\_7, wherein accessing the object further comprises managing, manipulating, or modifying the object or a relationship between the object and one of more of the other objects.

23. (Canceled).

24. (Currently amended) A computer-readable medium as recited in claim 34\_23, wherein the inter-object relationships comprise a flat relationship, a hierarchical relationship, and multiple intersecting hierarchies of relationships.

25. (Currently amended) A computer-readable medium as recited in claim 34\_23, where the objects comprise enterprise resource planning (ERP) objects, directory based objects, or database objects.

26. (Currently amended) A computer-readable medium as recited in claim 34\_23, further comprising computer-executable instructions for communicating the schema to a client to indicate how the client is to interface with the objects in the data polyarchy.

27. (Canceled).

Appl. No. 09/995,415

Response to May 10, 2004 Office action

28. (Currently amended) A computer-readable medium as recited in claim 34 27, wherein the transformed data expresses the inter-object relationships with respect to other objects in a same dimension or other objects in a different dimension, the same and/or the different dimension being indicated by the request.

29. (Currently amended) A computer-readable medium as recited in claim 34 27, wherein the request comprises a limiting attribute to limit the transformed data by presenting the one or more objects only with respect to the limiting attribute.

30. (Currently amended) A computer-readable medium as recited in claim 34 27, wherein the request queries for information corresponding to an object in the data polyarchy with respect to one or more particular dimensions.

31. (Currently amended) A computer-readable medium as recited in claim 34 27, wherein the request comprises a dimension indicator to specify one or more hierarchies within which the data is to be presented in the transformed data.

32. (Currently amended) A computer-readable medium as recited in claim 34 27, wherein the request further comprises a distinguishing attribute, a classifying attribute, or a locating attribute.

33. (Canceled).



Appl. No. 09/995,415

Response to May 10, 2004 Office action

34. (Currently amended) A computer-readable medium ~~as recited in claim 33, comprising computer-program instructions executable by a processor~~ for:

dynamically generating a schema to represent multiple hierarchies of inter-object relationships between a plurality of objects in a data polyarchy, the schema being generated based on values of attributes of the objects, the schema indicating each attribute of interest in the data polyarchy, the schema further indicating any of one or more dimensions of inter-object relationships within which objects that comprise at least a subset of the attributes of interest participate;

receiving a request from a client based on the schema, the request comprising a dimension information modifier to specify a particular direction and a particular depth to retrieve information from the data polyarchy, wherein the dimension information modifier is being a siblings indication to retrieve all objects with a same parent as a current object in the data polyarchy;

responsive to receiving the request:

accessing at least one object in the data polyarchy based on the request;

transforming the at least one object into transformed data that expresses any inter-object relationship between the at least one object and any other objects of the objects based on the request; and

issuing the transformed data to the client.

Appl. No. 09/995,415

Response to May 10, 2004 Office action

35. (Currently amended) A computer-readable medium as recited in claim 34 27, wherein the request indicates that at least one subset of the objects comprise a similar attribute; and wherein the computer-executable instructions for accessing one or more objects further comprise instructions for:

retrieving the one or more objects in a manner that is independent of any hierarchical data relationship between the data objects in the at least one subset.

36. (Original) A computer-readable medium as recited in claim 35, wherein the similar attribute comprises a logical domain selected from a distinguishing domain, a locating domain or a classifying domain.

37. (Currently amended) A computer-readable medium as recited in claim 34 27, wherein the request corresponds to at least a first and second subset of the objects, the request comprising a logical modifier that specifies an operation, and wherein the computer-executable instructions further comprise instructions for:

responsive to receiving the request, identifying at least a portion of the first and second subsets of directory objects in the polyarchical data set; and

wherein transforming the one or more objects further comprises performing the operation on the first and second subsets.

38. (Original) A computer-readable medium as recited in claim 37, wherein the logical modifier is a Boolean modifier.

Appl. No. 09/995,415

Response to May 10, 2004 Office action

39. (Original) A computer-readable medium as recited in claim 37, wherein the operation comprises any combination of filtering, union, intersection, join, and/or exclusion operations.

40. (Currently amended) A computer-readable medium as recited in claim 34 27, wherein accessing the at least one object further comprises accessing the at least one object in a manner that is independent of any inter-object relationship between the at least one object and any other object of the objects in a manner that is independent of any definition of a hierarchy in the data polyarchy.

41. (Currently amended) A computer-readable medium as recited in claim 34 27, wherein accessing the at least one object further comprises querying the data polyarchy for the at least one object.

42. (Currently amended) A computer-readable medium as recited in claim 34 27, wherein accessing the at least one object further comprises managing, manipulating, or modifying the at least one object or a relationship between the at least one object and one of more different objects of the objects.

43. (Canceled).

44. (Currently amended) A computer as recited in claim 54 43, wherein the inter-object relationships comprise a flat relationship, a hierarchical relationship, and multiple intersecting hierarchies of relationships.

Appl. No. 09/995,415

Response to May 10, 2004 Office action

45. (Currently amended) A computer as recited in claim 54 43, where the objects comprise enterprise resource planning (ERP) objects, directory based objects, or database objects.

46. (Currently amended) A computer as recited in claim 54 43, wherein the computer-executable instructions further comprise instructions for communicating the schema to a client to indicate how the client is to interface with the objects in the data polyarchy.

47. (Canceled).

48. (Currently amended) A computer as recited in claim 54 47, wherein the transformed data expresses the inter-object relationships with respect to other objects in a same dimension or other objects in a different dimension, the same and/or the different dimension being indicated by the request.

49. (Currently amended) A computer as recited in claim 54 47, wherein the request comprises a limiting attribute to limit the transformed data by presenting the one or more objects only with respect to the limiting attribute.

50. (Currently amended) A computer as recited in claim 54 47, wherein the request queries for information corresponding to an object in the data polyarchy with respect to one or more particular dimensions.

Appl. No. 09/995,415

Response to May 10, 2004 Office action

51. (Currently amended) A computer as recited in claim 54\_47, wherein the request comprises a dimension indicator to specify one or more hierarchies within which the data is to be presented in the transformed data.

52. (Currently amended) A computer as recited in claim 54\_47, wherein the request further comprises a distinguishing attribute, a classifying attribute, or a locating attribute.

53. (Canceled).

Appl. No. 09/995,415

Response to May 10, 2004 Office action

54. (Currently amended) A computer ~~as recited in claim 53~~, comprising:  
a memory comprising the computer-executable instructions; and  
a processor coupled to the memory, the processor being configured to fetch  
and execute the computer-executable instructions for:

dynamically generating a schema to represent multiple hierarchies of inter-  
object relationships between a plurality of objects in a data polyarchy, the schema  
being generated based on values of attributes of the objects, the schema indicating  
each attribute of interest in the data polyarchy, the schema further indicating any  
of one or more dimensions of inter-object relationships within which objects that  
comprise at least a subset of the attributes of interest participate;

receiving a request from a client based on the schema, the request  
comprising a dimension information modifier to specify a particular direction and  
a particular depth to retrieve information from the data polyarchy, wherein the  
dimension information modifier is being a siblings indication to retrieve all objects  
with a same parent as a current object in the data polyarchy;

responsive to receiving the request:

accessing one or more objects in the data polyarchy based on the request;

transforming the one or more of the objects into transformed data  
that expresses any inter-object relationships based on the request; and

issuing the transformed data to the client.

Appl. No. 09/995,415

Response to May 10, 2004 Office action

55. (Currently amended) A computer as recited in claim 54 47, wherein the request indicates that at least one subset of the objects comprise a similar attribute; and wherein the computer-executable instructions for accessing one or more objects further comprise instructions for:

retrieving the one or more objects in a manner that is independent of any hierarchical data relationship between the data objects in the at least one subset.

56. (Original) A computer as recited in claim 55, wherein the similar attribute comprises a logical domain selected from a distinguishing domain, a locating domain or a classifying domain.

57. (Currently amended) A computer as recited in claim 54 47, wherein the request corresponds to at least a first and second subset of the objects, the request comprising a logical modifier that specifies an operation, and wherein the computer-executable instructions further comprise instructions for:

responsive to receiving the request, identifying at least a portion of the first and second subsets of directory objects in the polyarchical data set; and

wherein transforming the one or more objects further comprises performing the operation on the first and second subsets.

58. (Original) A computer as recited in claim 57, wherein the logical modifier is a Boolean modifier.

59. A computer as recited in claim 57, wherein the operation comprises any combination of filtering, union, intersection, join, and/or exclusion operations.

Appl. No. 09/995,415

Response to May 10, 2004 Office action

60. (Currently amended) A computer as recited in claim 54 47, wherein accessing the one or more objects further comprises accessing the one or more objects in a manner that is independent of any inter-object relationship between the one or more objects and any other object of the objects in a manner that is independent of any definition of a hierarchy in the data polyarchy.

61. (Currently amended) A computer as recited in claim 54 47, wherein accessing the one or more objects further comprises querying the data polyarchy for the one or more objects.

62. (Currently amended) A computer as recited in claim 54 47, wherein accessing the one or more objects further comprises managing, manipulating, or modifying the one or more objects or a relationship between an object of the one or more objects and one of more different objects of the objects.

63. (Canceled).

64. (Currently amended) A computer as recited in claim 74 63, wherein the inter-object relationships comprise a flat relationship, a hierarchical relationship, and multiple intersecting hierarchies of relationships.

65. (Currently amended) A computer as recited in claim 74 63, where the objects comprise enterprise resource planning (ERP) objects, directory based objects, or database objects.



Appl. No. 09/995,415

Response to May 10, 2004 Office action

66. (Currently amended) A computer as recited in claim 74 63, further comprising processing means for communicating the schema to a client to indicate how the client is to interface with the objects in the data polyarchy.

67. (Canceled).

68. (Currently amended) A computer as recited in claim 74 63, wherein the transformed data expresses the inter-object relationships with respect to other objects in a same dimension or other objects in a different dimension, the same and/or the different dimension being indicated by the request.

69. (Currently amended) A computer as recited in claim 74 63, wherein the request comprises a limiting attribute to limit the transformed data by presenting the one or more objects only with respect to the limiting attribute.

70. (Currently amended) A computer as recited in claim 74 63, wherein the request queries for information corresponding to an object in the data polyarchy with respect to one or more particular dimensions.

71. (Currently amended) A computer as recited in claim 74 63, wherein the request comprises a dimension indicator to specify one or more hierarchies within which the data is to be presented in the transformed data.

Appl. No. 09/995,415

Response to May 10, 2004 Office action

72. (Currently amended) A computer as recited in claim 74 ~~63~~, wherein the request further comprises a distinguishing attribute, a classifying attribute, or a locating attribute.

73. (Canceled).

74. (Currently amended) A computer ~~as recited in claim 73~~, comprising: processing means for dynamically generating a schema to represent multiple hierarchies of inter-object relationships between a plurality of objects in a data polyarchy, the schema being generated based on values of attributes of the objects, the schema indicating each attribute of interest in the data polyarchy, the schema further indicating any of one or more dimensions of inter-object relationships within which objects that comprise at least a subset of the attributes of interest participate;

receiving a request based on the schema from a client, the request comprising a dimension information modifier to specify a particular direction and a particular depth to retrieve information from the data polyarchy, wherein the dimension information modifier is being a siblings indication to retrieve all objects with a same parent as a current object in the data polyarchy;

responsive to receiving the request:

accessing one or more objects in the data polyarchy based on the request;

transforming the one or more of the objects into transformed data that expresses any inter-object relationships based on the request; and

issuing the transformed data to the client.

Appl. No. 09/995,415

Response to May 10, 2004 Office action

75. (Currently amended) A computer as recited in claim 74 ~~67~~, wherein the request indicates that at least one subset of the objects comprise a similar attribute; and wherein the means for accessing one or more objects further comprise means for:

retrieving the one or more objects in a manner that is independent of any hierarchical data relationship between the data objects in the at least one subset.

76. (Original) A computer as recited in claim 75, wherein the similar attribute comprises a logical domain selected from a distinguishing domain, a locating domain or a classifying domain.

77. (Currently amended) A computer as recited in claim 74 ~~67~~, wherein the request corresponds to at least a first and second subset of the objects, the request comprising a logical modifier that specifies an operation, and wherein the processing means further comprise means for:

responsive to receiving the request, identifying at least a portion of the first and second subsets of directory objects in the polyarchical data set; and

wherein transforming the one or more objects further comprises performing the operation on the first and second subsets.

78. (Original) A computer as recited in claim 77, wherein the logical modifier is a Boolean modifier.

Appl. No. 09/995,415  
Response to May 10, 2004 Office action

79. (Original) A computer as recited in claim 77, wherein the operation comprises any combination of filtering, union, intersection, join, and/or exclusion operations.

80. (Currently amended) A computer as recited in claim 74 67, wherein the means for accessing the one or more objects further comprises means for accessing the one or more objects in a manner that is independent of any inter-object relationship between the one or more objects and any other object of the objects in a manner that is independent of any definition of a hierarchy in the data polyarchy.

81. (Currently amended) A computer as recited in claim 74 67, wherein the means for accessing the one or more objects further comprises querying the data polyarchy for the one or more objects.

82. (Currently amended) A computer as recited in claim 74 67, wherein the means for accessing the one or more objects further comprises means for managing, manipulating, or modifying the one or more objects or a relationship between an object of the one or more objects and one of more different objects of the objects.

83 - 91. (Canceled).